

# ASYNCHRONOUS DATA BUFFER AND A METHOD OF USE THEREOF

## ABSTRACT

5           An improved asynchronous data buffer is disclosed. The data buffer comprises an entry section and a signaling circuit coupled to the entry section, the signaling circuit for signaling the data buffer to transfer a portion of a data cell from the entry section prior to the data cell being completely received by the entry section. Through the use of the data buffer in accordance with the present invention, data transfer systems are improved in two ways. First, by enabling data to  
10           be transferred before it is completely stored into the buffer, the latency that is typically required for data cell transfer is reduced. Second, the buffer storage space that is typically required to store a complete data cell is also reduced. This two-fold improvement produces increased data transfer rates while decreasing the amount of required buffer storage space.